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EXAMINER

HUYNH, CHUCK

ART UNIT PAPER NUMBER

2683

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,080

Applicant(s)

KOSTER, KARL

Examiner

Chuck Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

By

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 23 rejected under 35 U.S.C. 102(b) as being anticipated by Sollenberger et al. (hereinafter Sollenberger).

Regarding claim 23, Sollenberger discloses a method for handling an wireless emergency call originating from a fixed location wireless subscriber (Abstract), comprising the steps of:

receiving a call origination request at a mobile switch from the fixed location wireless subscriber containing a calling party number and a dialed number (Col 5, lines 35-43);

accessing a first database and determining whether the calling party number is associated with the call origination request is associated with a fixed location wireless service (Col 5, lines 49-56; Fig. 2, no.29);

analyzing the dialed number in the call origination request and determining the dialed number is equal to 911 (Col 5, lines 46-47);

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accessing a second database indexed by the calling party number containing an location address associated with the fixed location wireless subscriber (Col 5, lines 65-67; Col 6, lines 1-16); and

sending the location address to a public safety answering point (Col 6, lines 25-38).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 4-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Senn et al. (hereinafter Senn).

Regarding claim 1, Senn discloses a method of billing a wireless subscriber using a mobile telecommunications device for wireless communication services comprising the steps of:

processing a call associated with an originating address associated with the mobile telecommunications device (Col 2, lines 8-11; Col 6, lines 14-17), said

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processing performed by a mobile switching center connected to an antenna wherein the antenna is in radio communication with the mobile telecommunications device (Col 6, lines 18-19);

determining a first antenna identifier of the antenna associated with the call (Col 6, line 18; Figure 1, no. 108);

recording the call start time and the originating address associated with the call in a call detail record data file maintained in the mobile switching center (Col 7, lines 37-29; Col 8, lines 11-15);

transferring the call detail record data file from the mobile switching center to a data processing center (Col 5, lines 20-29; Col 6, lines 19-23);

retrieving a rating profile associated with the originating address associated with the mobile telecommunications device comprising a second antenna identifier and a first billing rate (Col 9, lines 13-20); and

determining an amount to be billed for the call based in part on the comparison of the first antenna identifier with the second antenna identifier and the first billing rate (Col 9, lines 45-51).

Regarding claim 2, it is inherent that the method of claim 1 wherein the call is a voice telephone call.

Regarding claim 4, Senn discloses the method of claim 1 wherein the originating address is a telephone number (Col 2, lines 8-11).

Regarding claim 5, Senn discloses the method of claim 1 wherein the originating address is an Internet Protocol address (Col 6, lines 7, 28).

Regarding claim 6, Senn discloses the method of claim 1, wherein the step of determining the amount to be billed further comprises using the first billing rate if the first antenna identifier matches the second antenna identifier (a call within the same service provider area/location using the same antenna) (Col 7, lines 21-32) and a second billing rate if the first antenna identifier does not match the second antenna identifier (when transfer/handover to another provider occurs) (Col 9, lines 13-23).

Regarding claim 7, Senn discloses the method of claim 1 wherein the step of determining the amount to be billed further comprises using a first billing rate determined in part by comparing a time schedule with the recorded call start time (Col 10, lines 52-60). It is well known that the duration of a call involves a starting time.

Regarding claim 8, Senn discloses the method of claim 7 wherein the time schedule contains a peak time period associated with the first billing rate and an off-peak time period associated with a second billing rate (Col 7, lines 38-52).

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2. Claim 18- 21 are rejected under 35 U.S.C. 102(e) as being anticipated by De Verteuil.

Regarding claim 18, De Verteuil discloses a method of billing a wireless subscriber for communication services associated with a call originating from a mobile telecommunications device located in a certain geographical location (Abstract) comprising the steps of:

recording call detail information in a file wherein the call detail information (Page 3-4, [0025]) comprises a starting time of the call, an ending time of the call, an originating telephone number of the caller, and a first geographical location indicator associated with the call (Page 4, [0027]);

transmitting the call detail information to a billing system (Page 4, [0025]);

determining the amount due for the call by using the geographical location indicator of the call, the duration of the call, and a subscriber billing rate wherein the amount due is determined in part by whether the first geographical location indicator of the call matches a second geographical location indicator contained in a rating profile associated with the originating telephone number (Page 4, [0031], [0034]); and

recording the amount due in a billing file associated with the originating telephone number (Page 5, [0038]).

Regarding claim 19, De Verteuil discloses the method of claim 18 wherein the location indicator comprises an antenna number (Cell ID) (Abstract; Page 1, [0005]).

Regarding claim 20, De Verteuil discloses a system for billing a wireless subscriber for a wireless call where the subscriber originates a call within a certain prearranged geographic location entitling the caller to a specified billing rate (Abstract), comprising:

- a mobile communications device associated with a telephone number capable of originating a call within the certain geographic location (Abstract);

- an antenna having at least one antenna sector capable of handling a radio communication of the call originated by the mobile phone (Page 3, [0025]);

- a mobile switching center (Page 3-4, [0025]) operatively connected to the antenna and switching the call originating from the mobile communications device, wherein the switch is capable of recording information associated with the call in a call record file (Page 3-4, [0025]) including the starting time of the call (Page 4, [0031]), ending time of the call (it is inherent in the art to record ending time to calculate duration of call to be charged), telephone number associated with the mobile communications device, antenna number associated with the call, and sector number associated with the antenna (Page 4, [0027]) ; and

- a billing system comprising a first database capable of receiving the call record file from the mobile switching center (Page 4, [0025]), a second database storing a rating profile file information comprising a second antenna number associated with the telephone number of the mobile communications device (Page 4, [0027]), a processor processing the call record file and rating profile file

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to determine an amount due associated with the call by determining whether the antenna number in the call record file matches the second antenna number indicated the rating profile file (Page 4-5, [0031], [0032], [0034]), and a third database storing the amount due associated with the call (Page 4, [0025]).

Regarding claim 21, De Verteuil discloses the system of claim 20 wherein the mobile switching center is operatively connected to an HLR containing the telephone number and an indication of fixed location wireless service (Page 2, [0010]).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Emery.

Regarding claim 3, Senn discloses all the particulars of the claim except the method of claim 1 wherein the call is packet data communication.

However, Emery does disclose the method of claim 1 wherein the call is packet data communication (Col 6, lines 15-16).

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It would have been obvious to one ordinarily skilled in the art at the time of invention to transmit data packets to communicate.

2. Claim 9, 10, 13, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Dunn.

Regarding claim 9, Senn discloses a method of billing a wireless subscriber using a mobile telecommunications device for telephony services comprising the steps of:

processing a communication associated with an originating address, the originating address associated with the mobile telecommunications device, said processing using a switch connected to an antenna wherein the antenna is in radio communication with the mobile telecommunications device (Col 6, lines 14-19);

transferring the call detail record data file from the switch to a data processing center (Col 5, lines 20-29; Col 6, lines 19-23);

Senn discloses determining a first antenna (Col 6, lines 18-19) identifier but not a first antenna sector identifier associated the communication between the mobile telecommunications device and the switch;

however, Dunn discloses determining a first antenna sector identifier associated the communication between the mobile telecommunications device and the switch (Col 3, lines 18-25).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Dunn's disclosure of antenna sectors with Senn's disclosure to establish telecommunication.

Senn discloses recording the communication start time, originating address in a call detail record data file stored in the switch (Col 7, lines 37-29; Col 8, lines 11-15), but does not disclose antenna sector identifier;

however, Dunn discloses an antenna sector identifier (Col 3, lines 24-25).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate an antenna identifier from Dunn with Senn's disclosure to record telecommunication location data.

Senn discloses retrieving a rating profile associated with the originating address comprising a second antenna identifier, and a billing rate (Col 9, lines 13-20), but does not disclose antenna sector identifier;

however, Dunn does disclose antenna sector identifier in a billing scheme (Col 3, lines 24-25; Col 16, lines 34-38, 39-36; Col 17, lines 5-8).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Dunn's disclosure of antenna sector identifier with Senn's disclosure to determine billing criteria.

Senn does disclose determining an amount to be billed for the communication based in part on the comparison of the first antenna identifier with the second antenna identifier and the billing rate (Col 9, lines 45-51), but does not disclose the comparison of the first antenna sector identifier with the second antenna sector identifier.

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However, Dunn does disclose the comparison of the first antenna sector identifier with the second antenna sector identifier (Col 4, lines 5-7).

It would have been obvious to one ordinarily skilled in the art at the time of invention to determine which sectors the user is in to implement billing criteria.

Regarding claim 10, it is well known in the art that the method of claim 9 wherein the communication is a voice telephone call.

Regarding claim 13, Senn discloses the method of claim 9 wherein the originating address is a telephone number (Col 2, lines 8-11).

Regarding claim 14, Senn discloses the method of claim 9 wherein determining the amount to be billed further comprises using a first billing rate if the first antenna identifier matches the second antenna identifier (a call within the same service provider area/location using the same antenna identifier) (Col 7, lines 21-32), and a second billing rate if the first antenna identifier does not match the second antenna identifier.

Even though Senn discloses all the particulars of the claim, Senn does not disclose a first billing rate if the first antenna sector identifier matches the second antenna sector identifier (a call within the same service provider area/location using the same antenna sector identifier).

However, Dunn does disclose a first billing rate if the first antenna sector identifier matches the second antenna sector identifier (a call within the same

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service provider area/location using the same antenna sector identifier) (Col 3, lines 18-25; Col 16, lines 35-46).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Dunn's disclosure with Senn to determine user billing information.

Regarding claim 15, Senn discloses the method of claim 9 wherein the billing rate is dependent on a time schedule and determining the amount to be billed further depends on the communication start time recorded in the call detail data file compared to the time schedule (Col 10, lines 52-60). It is well known that the duration of a call involves a starting time.

Regarding claim 16, Senn discloses the method of claim 14 wherein the time schedule contains a peak time period and an off-peak time period (Col 7, lines 38-52).

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Dunn in further view of Emery.

Regarding claim 11, Senn in view of Dunn discloses all the particulars of the claim except the method of claim 9 wherein the communication is an instance of packet data communication.

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However, Emery does disclose the method of claim 9 wherein the communication is an instance of packet data communication (Col 6, lines 15-16).

It would have been obvious to one ordinarily skilled in the art at the time of invention to transmit data packets to communicate.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Dunn in view of Gray.

Regarding claim 12, Senn in view of Dunn discloses all the particulars of the claim except the method of claim 9 wherein the packet data communication uses an 802.11 based wireless communications standard.

However, Gray does disclose the method of claim 9 wherein the packet data communication uses an 802.11 based wireless communications standard (Col 3, lines 63-67 – Col 4, lines 1-5).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Gray's disclosure of 802.11 data packets for communication.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Fitch et al. (hereinafter Fitch).

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Regarding claim 17, discloses a method of billing a wireless subscriber of a wireless telephone call comprising the steps of:

recording call detail information for the wireless telephone call in a file stored in a mobile switching center wherein the call detail information (Col 6, lines 14-24) comprises the starting time of the wireless telephone call, ending time of the call (call duration) (Col 1, lines 61-62; Col 2, lines 13-14, 60-61), originating telephone number, first antenna identifier (Col 6, line 18);

Senn discloses all the particulars of the claim except a first antenna cell sector identifier associated with the call.

However, Fitch does disclose first antenna cell sector identifier associated with the call (Col 2, lines 40-44)

I would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate cell sector identifier in determine where the user is calling from to determine billing charges.

Senn discloses all the particulars of the claim except

processing the call detail information by determining whether the first antenna identifier and first antenna sector identifier associated with the call is the same as a second antenna identifier and second antenna sector identifier in a rating profile wherein the rating profile is associated with the originating telephone number; and

calculating a monetary amount associated with the call in part by determining the duration of the call and using a first billing rate indicated in the

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rating profile if the first antenna identifier and first antenna sector identifier associated with the call is the same as a second antenna identifier and second antenna sector identifier in a rating profile, or by determining the duration of the call and using a second billing rate indicated in the rating profile if the first antenna identifier associated with the call is not the same as the second antenna identifier in the rating profile.

However, Fitch does disclose

processing the call detail information by determining whether the first antenna identifier and first antenna sector identifier associated with the call is the same as a second antenna identifier and second antenna sector identifier in a rating profile wherein the rating profile is associated with the originating telephone number (Col 6, lines 2-7, 19-35); and

it would have been obvious to one ordinarily skilled in the art at the time of invention to determine if the user is within the designated calling area and did not initiate a call outside of the designated cell and sector zone to determine billing information; and

calculating a monetary amount associated with the call in part by determining the duration of the call and using a first billing rate indicated in the rating profile if the first antenna identifier and first antenna sector identifier associated with the call is the same as a second antenna identifier and second antenna sector identifier in a rating profile, or by determining the duration of the call and using a second billing rate indicated in the rating profile if the first antenna identifier associated with the call is not the same as the second antenna

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identifier in the rating profile (calling in a different zone) (Col 6, lines 26-29, 37-38); and

it would have been obvious to one ordinarily skilled in the art at the time of invention to determine that the user is calling from a registered cell, sector or zone to incorporate the correct billing charge.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senn in view of Emery.

Regarding claim 22, Senn discloses a billing system for billing a subscriber of a wireless service comprising:

a billing processor capable of processing a call detail file received from a mobile switching center wherein the call detail record file contains records comprising the starting time of the call, ending time of the call, telephone number associated with a wireless communications device associated with the call, and a network antenna associated with the call, wherein the processing determines a bill for a subscriber in part by processing the call detail file using a rating profile to generate billing information. (Col 6, lines 14-23, 46-52);

a first database, operatively connected to the billing processor, storing the call detail records (Col 5, lines 49-53);

a second database, operatively connected to the billing processor, storing a subscriber rating profile comprising the telephone number associated with the wireless communications device, rating information, and antenna (Col 5, lines 20-25), lines identification information (Col 5, lines 49-53); and

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Senn discloses all the particulars of the claim, but does not fully disclose a third database operatively connected to the billing processor storing the billing information generated by the billing processor.

However, Emery does disclose a database operatively connected to the billing processor storing the billing information generated by the billing processor (Col 13, lines 50-58).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate another database to provide storage of calculated billing information.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cooper; Guy A. discloses a Call routing in a wireless telecommunications system

Lamkin; Richard M. discloses a Call logging in a wireless telecommunications system

Vanden Heuvel; Dean Paul discloses a System for defining an individual subscriber unit location within a wireless communication system and method therefor

Dennison; Everett discloses a Cellular telephone system that uses

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position of a mobile unit to make call management decisions

Chow; Albert discloses a Method and apparatus for billing a neighborhood
cordless service

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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